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ABSTRACT

Nine essays serving as springboards to the study of historical events and cultures focus on the use of memorabilia and primary resources for teaching social studies. Following a short preface by John I. Thomas, Linda Carrillo examines ways in which folk songs can be used to arouse a child's interest in the study of other cultures. In "Using Older Citizens as Resources," Phyllis Gutierrez gives ideas for learning about one's ethnic heritage by talking to grandparents and other older adults. Esther Lopez tells how studying about trains can introduce students to language unique with those working for the railroads and to ways in which the railroads affected the course of history. In "Lamps and Light: Yesterday, Today, and Tomorrow," Ann Horton gives suggestions for using items such as kerosene lamps to build student interest in the past, present, and future. "From an Athenian Vase: Abstract" (Cathy Phillips) introduces a unit on ancient Greece using a handmade replica of an Athenian vase. In the next two essays, "Kimonos" (Elizabeth Padilla) and "Golden Shoes of India" (Naomi Chowdhuri), teachers explain how clothes and costumes of different cultures can lead to several avenues of inquiry. In "The Role of Furniture in History," Sandi Montoya describes how a unit based on furniture can incorporate concepts from several social science disciplines, including anthropology, sociology, economics, and political science. The final essay, "Colorado Gold," traces Colorado's early mining history and gives examples of ways in which such a unit could be used to teach concepts from history, sociology, political science, economics, geology, and geography. (LH)

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SOCIAL STUDIES: SELECTED TEACHING APPROACHES

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Preface

An ancient map. Arrowheads. An unsigned letter. Barbed wire. Strange-looking coins. A metate and mano. Each of these a springboard to the study of historical events and intriguing cultures! Stimulated and challenged to find out the origin of artifacts, the unknown author of a letter written a century ago, and the attraction of vintage bottles, medals, glass insulators, bread bowls, and automobile plates, students in my social studies class developed the following unique approaches to teaching the social studies in elementary school classrooms. Each approach centers on the use of material designed to first catch the eyes of pupils and then to stir their imaginations as they listen to folk songs, converse with an old sheepherder, use the unique language of railroaders (The ash cat was using the blister diamonds so that the bogger would have enough fog.), light a skull lamp, and participate in the exiting activities depicted in the articles that follow.

"Cursed be the dullards who destroy wonder!" Alfred North Whitehead's time-honored cry still holds true today. Effective learning is built on curiosity and fascination. Essays such as those focused upon in this collection clearly are designed to sharpen rather than dull the senses of pupils my students teach. The teaching approaches reflected are a result of exposing them to a rich variety of artifacts, historical documents, legends, coins, railroad spikes, postcards, coffee cans, and other memorabilia. Students in education, beginning and experienced elementary

school teachers and, I dare say, professors who teach elementary social studies classes, will, I feel, find the rich variety of teaching materials and approaches presented in this collection of essays useful.

John I. Thomas
Professor Education
August 1, 1985

FOLK SONGS: A CLOSER LOOK

Folk songs are those songs that people have been singing for more than three hundred years. They are more than just songs; they are keepsakes of the past. Folk songs can provide us with a view of the morals, customs, prejudices, and social values of an era. They are works of art that remind us of the feelings, moods, and emotions that all humans have in common. Folk songs can be very useful in arousing a child's interest in the study of other cultures.

Folk songs can be used in much the same way as artifacts are used in teaching social studies. As the children sing, listen, and analyze, many questions will arise. This would be especially true if the children could hear a folk song in one of the native languages. It would be appropriate to note that there are very few recorded Indian folk songs. The Indians sang songs about their way of life ling before the white man came to America. The white settlers thought the Indians made repulsive sounds when they sang. The Europeans could not understand the rhythms of the drums, the stamping feet, or the many tones of the Indian voice. This discovery could lead the children directly into a study of Indian culture.

As an example, I will develop a general unit plan based on a folk song from the Eskimo culture. The title of this folk song is "Ajaaj." It is an Eskimo drum song. This song is an expression of anger and scorn.

Upon hearing such strange music for the first time, the children would probably raise the question, "What kind of music is that?" This, of course, would require an explanation. After clarifying that the song is an Eskimo drum song, the teacher should ask questions that would arouse the children's curiosity and the children's need to learn more

about the Eskimo culture.

In their search for more information, the children would find that the Eskimo people live in the far northern areas of the earth. They would find that there are Eskimos who live on the coast of Greenland and Labrador, the Artic Circle, the northeastern Soviet Union, and the United States. Of particular interest to the children would be those Eskimos who live in the United States.

The question should be asked about what effect the environment had in shaping the Eskimo culture. The students would find that many of the Eskimos lived on barren, frozen land. They would learn that food and shelter were of the utmost importance to early Eskimo tribes. They would find that the struggle for survival was the main concern of the Eskimo culture. This would provide the route for the children to take in investigating early Eskimo culture which could then be compared to present day Eskimo culture.

The children would discover that much of the land on which Eskimos lived and still live is under snow and ice for six to nine months of the year. This could lead the students to hypothesize about how the people endured. Vegetables were unobtainable. There were trees in only a few areas. The children would learn that most areas lacked wood with which to make houses, tools, and weapons.

The question could then be raised about what the Eskimos used for shelter. The children would find that the term igloo is widely misunderstood. Most people think of an igloo as a house made of snow, but it actually refers to any kind of shelter. They will find that the construction of houses differed according to the location. The children will discover that Canadian and northwestern Eskimos lived in traditional, round snowhouses. They would learn that these snowhouses could only be

constructed with snow of the propler firmness. These snowhouses consisted of snow blocks which had been carved with whalebones and metal knives. The snowhouses had skylights made of fresh-water ice. The children would learn that Alaskan Eskimos lived in cabins made of driftwood which were insulated with turf. These cabins had skylights which were made of animal gut. The children would learn that the Eskimos lived in deerskin or sealskin tents during the summer months. Many others lived in houses made of wood or other imported materials. The children could be asked to compare the types of shelter used by the early Eskimos with the type of shelter used by the Eskimo people today.

While studying about the types of shelters used by the Eskimo people, the students might also learn about the traditional dress of the Eskimo. It would be interesting to see the children's reaction if they were given an actual opportunity to see and touch original Eskimo garb. The children would learn that fur was needed for protection against the cold. This was true in the past and in the present as well. Most Eskimo clothing was made from animal skins such as the caribou, the seal, and the mountain sheep. The children would learn that the costume varied from region to region but that each consisted of a coat or parka, trousers, stockings and shoes or mukluks. They would learn that two of each garment was worn in the winter months. The inner garment would always be worn with the fur against the body and the outer garment would be worn with the fur turned outside. The children would discover that the shoes were always made of sealskin because it does not spoil with dampness. They would find that all wore similar garments.

The children could then be asked to discover what king of food the early Eskimos relied upon for their existence. The children would discover that the Eskimos were meat eaters out of necessity. The Eskimo

had to rely on fish, land animals such as caribou, musk oxen, bears, hares and marmots, and also on sea mammals such as seals, beluga, walrus, and whales. The students would learn that the Eskimo used a bow and arrows made of wood, horn, or antlers with sinew. They would learn that the Eskimos used a special harpoon against the sea animals. The students would learn that a skin-covered boat called a kayak was used for hunting and fishing around lakes and rivers while an umiak was needed for whaling.

This could lead to an inquiry about the modes of transportation used by the early Eskimos and the modes of transportation being used today.

After learning about the people, the children could study the folklore, the dances, and folk music of the Eskimo people. They would learn that music was extremely important to the Eskimos. The Fskimos often sang to help overcome loneliness and to express inner feelings as "Ajaaj" does. Songs were often used to settle arguments.

In studying about Eskimo folklore, the children would discover many taboos that the Eskimo held in order to assure harmony between the people and their environment. The children would discover the Goddess Sedna who was thought to live at the bottom of the sea. Goddess Sedna had power over the sea animals and could withhold game from the Eskimos. Each year the Eskimo paid her homage in a ritual dance by the Eskimo angalok, or medicine man. If the goddess was sent back to the sea in good spirits, she would provide good hunting. It was essential not to offend the spirits of dead game animals so that the Eskimos would not be punished with famine. The children would discover that the Eskimos believed that the dead joined the spirit world and then returned to Earth in the form of a newborn baby.

To start a new line of inquiry, the teacher might bring up the sub-

ject of Alaska. After much questioning, the children would learn that Alaska is the home of North American Eskimos. They would find that the name Alaska is an adaptation of the Eskimo word Alakshak which means mainland. This promises the beginning of a whole new unit of study. The children could delve into a much deeper study of the Eskimo people and also the state of Alaska. There is much to be learned about the state's history, government, and economy.

The above plan is only one aspect of what can be learned through the study of folk songs. There are many things that could be implemented. For instance, westward expansion is one of the greatest stories in the history of the United States. Many folk songs have their origin in the great Gold Rush of 1840. "The Race To California" could give the children insight into the many different kinds of people who headed west and the way in which they traveled to get there. "Sweet Betsy From Pike" tells of members of a wagon train who travel west. This song is an excellent example with which to show how folk songs change as the needs of the people change. The specific references in the verses of the many different versions were based on the singer's own experiences with the land. "Great-Grandad" gives us a view of frontier life and its hardships. In many of the Black folk songs are expressions of oppression, outcries for freedom, and protest against human injustices. This is especially true of folk songs that were composed during the Civil War.

Many times folk songs are made to commemorate events in history. For example, "Ring Around the Rosies," a popular children's song, is actually telling about the Bubonic Plague in Europe. London Bridge actually collapsed in England. This brought about "London Bridge is Falling Down."

From my own investigations, I feel it would be very helpful for

social studies students to study the folk songs of a culture as they study that culture. Folk songs can tell us much about the past and about the people who lived in the past. Most children love music. It seems natural to incorporate it into the social studies program. Folk songs can be a catalyst for learning. They can provide the children with a basis for cultural understanding. Folk songs can supply a natural route into the investigation of other cultures.

Information Sources

Britannica Junior Encyclopedia, Encyclopedia Britannica, Inc., 1975 Chicago, pp. 2553-2560.

Songs of the Great American West, The Macmillan Company, 1967 New York Irwin Silber.

Sing of America, Scott, Tom, Thomas Y Crowell Company, 1947.

Folk Songs of the World, Haywood, Charles, The John Day Company, New York, 1966.

American Folk Songs For Children, Seeger, Ruth Crawford, Doubleday and Company, New York, 1948.

Encyclopedia Britannica, William Benton, Chicago, 1965, Vol. I, VII, IX.

-Linda Carrillo

USING OLDER CITIZENS AS RESOURCES

Many things can be used in the teaching of social studies. Artifacts, antiques, texts, learning centers, and field trips are just a few of the many that could be used. However, there is one resource we, as teachers could, use most effectively in teaching that we most likely don't use. This resource is our older citizens. Each one of us has family members that are full of unique ideas on history, economics, government, and so on. Taking this notion further, each class member, each student has the same type of relatives. Simple multiplication will show the available teaching resource in this area is great. Let's just take, for example, the Gutierrez children's grandfather.

Mr. Gutierrez was born in a small village in western New Mexico in 1911. From 1919 to 1935, Mr. Gutierrez was a sheepherder.

A unit could begin with a talk from Mr. Gutierrez concerning his years as a sheepherder. The location, choice of food, living conditions, solitude, and the general day to day life could all be discussed. The advantages of talk like chis are many. Among their number would be insight into another life, another era, another world. Also important is the concept that older people still have much to offer to us all.

After Mr. Gutierrez's talk, the children could develop their own maps concerning the geography of the Datil, New Mexico area where Mr. Gutierrez herded his sheep. They would find the area is somewhat remote, desert-like and mountainous. They might also discover that water is scarce, winters are long, and cold, and summers are short and dry. With this research, the children could not only expand their knowledge of map making but, also enlarge upon their knowledge of the geography of western New Mexico.

When the maps are developed, the question might be raised as to the type of people that could survive in such an area. With help from the teacher, the children could discover the people that migrated to this area two hundred years

ago were mostly of Spanish and French descent. Many of these people can trace their descent to original settlers from Spain to Old Mexico and on to New Mexico hundreds of years ago. The endurance, the courage, and the fortitude of these people could all be discussed. The class could also develop a play depicting the migration of the settlers from Europe to the New World. This theme could help the children expand their knowledge of the Spanish heritage and how this Spanish heritage mixed and evolved with the heritage of other cultures of the New World.

After looking at the people of this area, the class could discuss the occupations that would be available to these people. The class would soon discover through use of their maps and geography of the area that raising sheep would be one of the few alternatives available to the settlers. The class could learn that sheep can survive in barrenness that most animals can not. The economics concerning sheep could be explored. If sheep ranches are located in the area, students could take a field trip to one of the ranches. The children would learn at the ranch that sheep are extremely hardy and can be herded or kept easier than cattle.

The comparison between cattle and sheep could be branched out to another interesting subject. This subject would be the animosity between the sheep-herder and the cattleman. The children could discuss what might have caused the hostilities between the cattle ranchers and the sheep ranchers. Again, the economics of the subject could be brought to light. The cattlemen and the sheepherders both wanted a limited resource namely, the land and its resources. With this idea, the class could participate in a role playing experience. Part of the class could be sheepherders. The other part of the class could be cattlemen. The children could explore the feelings that gave rise to the resentment of both groups. Families, water, resources, money, and basic survival could all be entered into this role playing.

With rational guidance, the children might arrive at their own answers for a feud that cost so many so much.

A section of the unit could involve the food a sheepherder would eat. From Mr. Gutierrez, the class would learn that sheepherders mainly ate beans, chili, sopapillas, sweet rice, and drank coffee. Discussion could be held as to the advantages of this type of food on the trail. The class would discover that beans, chili, rice, and coffee are easily preserved without refrigeration or other such devices. The class would also learn that this type of food was then, as now, basically inexpensive. A short study could be developed on the nutritious aspect of the above-mentioned foods. If this study was done, the class would find the foods ate by the sheepherders provided them with most of the basic dietary food needs. A language experience could be done with recipes for sopapillas and sweet rice. With the teacher's help, the class could prepare the foods. Invitations could be prepared, and guests invited. Time could be set aside for the class and the guests to sample the foods. This part of the unit would expand the children's knowledge of food storage, one's dietary needs, the foods of other cultures, food preparation, and preparation of invitations. In this section of the unit one could involve health, math, and language arts.

Another section of the unit could involve the entertainment the sheepherder would have available to him. From Mr. Gutierrez, the children would learn that the sheepherder in his spare time would read, play a musical instrument, or write letters. Also, the children would be told, if the sheepherder was around other sheepherders, a great amount of time would be spent telling tall tales. The teacher could explain that these tales involved much preparation. The sheepherder would use elaborate oral skills to tell the tales. If possible the teacher could invite a professional storyteller to the school. Also, the children could write their own tales. After the children

finished their tales, time could be set aside for a "around the campfire" tale telling contest. If the children were interested, the developed tales could be written in book form to save for the class. Illustrations by the children could also be included. From this section of the unit, the students become familiar with storytelling, writing a story, writing a book, and illustrating a book. Thus, in these ways, the language arts could be intergrated into the social studies unit.

Another section of the unit could involve wages earned. Mr. Gutierrez would have told the children he earned one dollar a day at the time he was sheepherding. The children could make a chart that had things one could buy with a dollar right now. With Mr. Gurierrez's help and research, the children could develop a chart of things one could buy in the sheepherder's day with one dollar. The comparison of the worth of a dollar could bring up discussions of inflation, depression, and standards of living. Another role playing experience could be done at this time. The children could be divided into small groups of sheepherders. Each group would be given a "dollar" to spend. Items would be available and priced for the groups to buy. Each group would decide among themselves what to buy and why. Discussion could be held as to why each group decided to buy what they did. This section of the unit would give the class an understanding of the inflation and deflation of money and the importance of money management. Again, math could be integrated into the social studies unit.

Of course, the above mentioned sections of this social studies unit are not conclusive. So many more could be developed. This paper provides just a sample. However, I think it is important to consider the contributions older people can make to younger children. When we consider that we tapped only a short span of life of a very interesting person, we must think of the expansive amount of knowledge left unexplored. The same man used for this example also

lived through the Great Depression, World War II, the Korean War, the Vietnam War, the Cold War, the coming of the space age and so much more. This is on-the-scene knowledge that really can have no substitute.

-Phyllis Gutierrez

RAILROAD TRAINS

Today if we want to travel, we probably won't take a train. We might instead take a supersonic jet or if we go by car, a 1984 van. But, in the 1800's, trains were in.

If I were to start a unit on trains I'd first ask what the pupils know about trains. I would ask them to tell me what they may encounter on a train ride, where would the train go, and what kind of people would they meet.

Next the children could research and find out that the first train or locomotive came from Great Britain. In the 1830's such locomotives like the "Best Friend" and "Tom Thumb" were built. You could have the pupils then make their own train, and name it, and state why they chose that name. "Best Friend" was picked because of the great size of the train, and "Tom Thumb" because it was small in size. Each pupil in the class can make just one train car a piece from a shoe box, and combine all cars to make a big train. The the class as a whole can decide on a name. Using various kinds of maps of the United States, encourage the pupils to plan a route on which the trains would go. Each pupil would have to travel to at least three states. Here is where the pupils can learn geography. Would the train travel through and over mountains, plains, rivers, or lakes? What are the people like who live in these states? What do they do for a living? What is the weather like in the states traversed by the train?

A railroader might say something like this:

"The crumb boss was flippen' his tissues on the angel's seat in the monkey house; the ash cat was using the blister diamonds so that the hogger would have enough fog." In translation it would read: The conductor was reading his train orders while sitting in the cupola of the caboose; the fireman was shoveling coal to feed the engine fuel so that the engineer would have enough steam.

I think pupils would like to come up with their own railroad talk. They could use this railroad jargon when role playing. There's about 300 different words and phrases they could use, all ranging from A to Z. They could also get interested in other types of jargon. People who work in construction, factories, or other businesses have their own language. Pupils could start learning new words and about different careers. Each child could select a career and come up with what its jargon was, then each one could tell the class what they found out. This way the whole class would also benefit.

Another thing the class could do is to go here on Main Street in Las Cruces where there are railroad tracks that are still being used. Also behind Compress Road in Las Cruces there are a couple of train cars that pupils could see. One other thing they could do is to compare yesterday's train with today's. There were many different trains made over years. Trains ran by coal, but today are fueled by electric power or diesel. Today trains usually deliver freight. Amtrack is one company that carries passengers from state to state. Over the years train companies have gone out of business, because they usually only get 6 to 8 percent profit back.

I feel trains would stimulate and motivate kids into a lot of different areas.

By 1839, 2,818 miles of railroad track were built. Twenty-one years later 11,018 miles of track had been laid down. Railroads were growing rapidly. It's very interesting to know that railroad trains played a big part in the Civil War.

It was July 21, 1861. A large Federal Force led by General Irvin McDowell was winning a heavy battle against General Beauregard's Confederate army. As McDowell's army strongly gained the upper hand, fresh rebel troops arrived by train. McDowell's army was forced into retreat. Beauregard's

army won the Battle of Bull Run. For the first time in history, railroads directly determined the outcome between two large armies.

The North and South war zones depended on trains to bring war materials quickly and efficiently. Advancing armies would move in to capture important rail lines, while retreating armies did all they could to destroy railroads they left behind. In fact a large part of the war was fought along the railroads.

I think studying about trains is a great way to introduce the Civil War. I think it can make it very interesting. Pupils could find out exactly which railroads were important enough to protect or have. Who were the big generals that led the Civil War. They could do a lot of research on the war. They could act out a battle scene, or maybe how it was to be a slave. They could do a paper on Lincoln, and how he played a big part in the war, or any other president of the United States and his contributions of America.

Another interesting thing I found was that people who worked around the railroad trains had their own language. I found a book called The Language of the Railroader by Ramon, A. I went through it and randomly selected twenty words, to give you an idea on the different language that was used then. Here are the words:

(1) Saloon: A caboose

(2) Seat hot: A passenger using more than one seat in a passenger car or station waiting room while other are forced to stand.

(3) Rat hole: The fire door of an engine.

(4) Pound their ears: To sleep.

(5) Hot shot: A fast train. A freight carrying perishables.

(6) Eye: A trackside signal.

(7) Beat the pig: To act as engineer.

(8) Belly of a drag: The underbracings of a railway car.

(9) Annie Oakley: A railroad pass.

(10) Sharp end: The head-end of a train wagon.

(11) Walk up against the gun: To ascend a steep grade with injector on.

(12) Walk the dog: To run a freight train so fast that the cars sway from side to side.

(13) Soup: Water.

(14) Snozzled: Drunk.

(15) Bull: A locomotive.

(16) Bub: To stop.

(17) Conny: Short for "Conductor."

(18) Cow cage: A stock Car.

(19) Head-end: To pull a train.

(20) Main iron: A main track.

BIBLIOGRAPHY

1. Adams, R. F., (1977). The language of the railroader. University of Oklahoma: Norman.

2. Haresnape, B., (1972). Steam locomotion takes shape. Octopus Books Limited.

3. Ogburn, C., (1977). Railroads: The great american adventure. National Geographic Society.

4. Reed, K. C., (1970). Train wrecks. Superior Publishing Co., Seattle Washington.

-Esther Lopez

LAMPS AND LIGHT
YESTERDAY, TODAY, AND TOMORROW

Most teachers have many items in their homes that can be used to build the students' interest in learning how people live today and how they lived yesterday. Items such as antique furniture, clothing, jewelry, art or items from another country or culture. One item in our home is a miniature copy of the Russian Sputnik. Using this I could introduce the history and advancement of space exploration. I could also show the students a collection of foreign money to build their interest in foreign exchange. The blab I showed in my class demonstration was a good interest builder too, but, the item I was to share in this mini-paper, is our collection of Argand (Kerosene) lamps. By bringing one type of lamp into class I can have the students learn the history of lamps, how they were used in the past, and are still being used today. They could study about the time, place, and who discovered the first lamp. After studying the lamps we can branch out to different aspects of light such as the living light, natural light, uses of man-made light, and how to make light.

My husband started collecting Argand (Kerosene) lamps before we were married. He has lamps that have belonged in his family for many years. He bought a few lamps in foreign countries while he was in the armed services and the rest we have bought in antique shops. Kerosene lamps have a tube-shaped wick that sets between two metal cylinders. This wick produces a circular flame. A glass chimney is placed over the flame because it makes the flame burn brighter and with less smoke. Our lamps range in size and shape. The smallest one is about 6" high and looks like a toy, but it works great. The largest one is called an Alladin Kerosene lamp and is about 20" high. We have one lamp that has a shade, like our modern lamps, and was considered one of the finer lamps during the early

1900's. A very unique lamp we have came from Germany. It looks like the old railroad lantern but it was used to hang on barricades to warn travelers of road damage. These lamps were used until the middle 1950's.

I will start the study of light by bringing into class some of our lamps. They will be placed around the room in safe places. If the room is too light we will put dark paper on the windows because I want to share the experience of using the lamps with the students. We will have a demonstration on how to light the lamps. The students will have the opportunity to experience how their great grandparents used this type of lamp to do their studies.

After the students' interest has been aroused I can have them do some history searching on lamps and their uses. The students can talk with their parents or grandparents about lamps and some of the parents might even want to share experiences with the class. The students can work by themselves or in groups to do their research. Following is a partial list and description of lamps that can be researched by the students.

1. Skull Lamp - Prehistoric man stumbled onto the principle of the lamp when he lit rushes set inside animal skulls filled with melted animal fat. The ancient Egyptians improved on the crude skull lamp. They used wicks made of cotton set inside hollow stones filled with grease.

2. Ancient Greek Lamp - The Greeks and Romans shaped lamps from terra cotta, a type of clay, and bronze, and burned olive oil in them. Except for the addition of reflectors to diffuse or concentrate the light, few improvements in lamps occured until the 1700's.

3. Student Lamp - Lard oil lamps with a highly polished reflector were used by Noah Webster when he was working on his dictionary.

4. The Candle - The candle was a great improvement over fat and oil fuels. Candles were expensive and could only be afforded by the rich.

5. The Cobbler's Lamp - This lamp was used in the middle ages and had four water-filled globes mounted on a square stand. The rays of a candle were diffused when they passed through the globe.

6. The Gaslight Lamp - In the late 1700's and early 1800's, scientists learned how to use gas as a fuel, and the gas lamp became the main source of lighting. The gas lamp was improved in the mid-1800's with the development of a gas mantle. During the 1800's kerosene replaced oil as the fuel for oil lamps and was the last improvement before electricity became the form of lighting. The gas pressure lamp is still used today in rural areas and by campers.

Before moving to another aspect of light I would have the students bring in pictures of lamps, old and modern, and write about them, give an oral report on them, or have a guest speaker come in to give a talk on lamps. (This guest speaker could be a parent or grandparent of one of the students.)

Now we are ready to study our modern light--electricity. The students can study about Thomas A. Edison's discovery of electricity in 1879. The electric lamp became the main source of light and in 1954 the world's largest lamp was built to commemorate the 75th anniversary of Edison's invention. This lamp, on display in Cleveland, stands 42 inches high and uses 75,000 watts of electricity. It weighs 50 pounds and produces as much light as 2,875 60-watt light bulbs can produce.

The students can learn how to wire a board to make a light bulb light up as a learning activity. They can also do studies on how they use electricity in their homes and in the class room.

Another area of light to study is the living light. The students can enjoy this unit because some of them will be able to relate to experiences of seeing or catching fireflies. Fireflies are beetles that glow like sparks of fire in the dark. Five chemicals - adenosine triphosphate, luciferin, oxygen, magnesium, and luciferase are bound up in the firefly's abdomen by a chemical controller. When nerve stimulations release another chemical, inorganic pyrophsophate, the bond breaks and the reaction produces the light.

The larvae (young fireflies), and even the eggs give off light. The

larvae are often called glowworms.

Fireflies are used for decoration and for light. Cuban women sometimes pin a firefly called a click beetle on their gowns, or attach one to a gold chain. People in tropical countries sometimes put many in a bottle and use them for lanterns. They give off their light in flashes but, when there are so many in a bottle at the same time, some are lighting constantly. Men who travel through dense tropical forest at night sometimes attach the fireflies to their boots to light their paths.

Every summer when our children were young we would visit our family in Illinois. The fireflies are easy to catch and the children would catch hundreds of them. They would put them into jars to make living lamps. Other sources of living light are Angler fish, luminous bacteria, and luminous fungi.

Natural light is still another unit and hopefully the adventure with the lamps will build the students' interest in light and its uses in our past, present, and future lives. The study of sunlight, moonlight, and light from the stars can branch into many areas of learning.

It is amazing that one little kerosene lamp can bring one aspect of our past, blending it with the future, to induce a broad prospective of learning.

Information Sources

Notes received from antique dealers at the time we purchased some of our lamps.

The World Book Encyclopedia, Field Enterprises Educational Corportation, 1970, Volume 12, pp. 52-54, 248-254.

-Ann Horton

FROM AN ATHENIAN VASE
Abstract

A social studies unit of instruction can begin with nearly anything. A replica of an actual item directly associated with the unit is a good beginning. Upper elementary students across America study ancient Greece at one time or another. What better way to introduce a unit on Greece than to have a replica or an authentic item from Greece? With some research and brainstorming, virtually every branch of social science can be tied in with that one replica. And at the same time students gain a more precise and holistic understanding of the unit topic.

Ancient Greece is a typical social studies topic for sixth graders. From what I have observed, the central focus is usually on limited areas of social studies such as architecture, athletics, and the arts. I propose introducing a unit on ancient Greece with a handmade replica of an Athenian vase I have from Greece. Through this one Greek item, practically every branch of social studies could be focused on, and investigative problems could be presented for student research.

HISTORY

The replica I have is a style which evolved from vases whose development and use began around 675 B.C. in Corinth. These first noteworthy vases were black silhouetted figures against red clay. They were popular for their practical, functional uses, excellence in craftsmanship, beautiful proportion, velvety jet black finish and lively narrative scenes. These scenes were often depicted by inscriptions on the vases.

Some vase painters even signed their work and ancient vases can often be distinguished by the distinct style of the painter. Artists began with block silhouetted figures on red clay. This evolved into red figures

painted with red clay slip on a black background. Through the years the style of the Athenian vases evolved further.

Students could investigate how the vases were made -- coil, free hand? How did this particular style that became so popular, get started, do you think?

GEOGRAPHY

The clay for these vases came from some easily available place, most likely. A look into the physical geography of Corinth and Athens would be interesting. Did the clay come from the hillside? . . . from nearby? . . . from far? What was used for the paint? Was this also a product of natural and local resources?

These questions could easily and very naturally branch off into Greek use of natural resources, which in turn could branch off into ancient Greek economy.

ECONOMICS

The Athenian vases saturated the, then known, world market. As stated previously they were popular for many reasons. Greek art had become fully developed independent of foreign influence and was much sought after in other lands. This leads to economy, particularly in trade with other countries.

Students could discover facts about ancient Greek trading. What countries did they trade with? What products were Greece's major exports/imports? Why did Greece choose the countries they traded with? What kind of merchant ships did they use? Map out some of the routes traveled times of the year they primarily set sail. Did they travel across land in trade caravans? This last question could lead to the fortress structures, such as on the island of Crete, which guarded passes.

After 320 B.C., no more pottery was exported from Athens. How could this have affected Greek trade with other countries? What influence could this have had on the value of the Athenian vases in Greek society, in foreign countries? Only prize vases for athletes competing at the Panathenaea were made in Athens

after 320 B.C. Students could speculate as to why this was the case and try to find evidence to support their hypothesis.

SOCIOLOGY AND ANTHROPOLOGY

The Athenian vase is a symbolic representation of Greek society. The figures on the vases depicted a wide variety of Greek life styles, beliefs, culture and folkways. Depictions of Greek mythology/gods, atheletics, literature, music, social life, etc. are all included in Athenian vases. Students could take the vase I have or a picture of another and write their interpretation of what the vase's figures represent. They could also create their own vase and paint figures on it to represent an important aspect of their own culture. Why did the potter/painter choose this particular scene, do you think? Was there a special purpose or reason for the particular scenes/subjects choosen to be placed on the vase? Was this possibly a way to record beliefs or history/ events? Did the cultural scenes on the vase have any obvious influence on the other countries lifestyles, as they were exported?

ARCHEOLOGY

The historical remains of these ancient Athenian vases are extensive. There is a profusion of them scattered, not only throughout Greece, but also in North Africa, Asia Minor, Italy, Sicily, Spain, France and more. Students could speculate/research what uses these vases had, the shapes and sizes and the types of homes they would most likely be found in. What class of people made/used these vases?

Obviously there are numerous other directions this simple replica of an Athenian vase could lead us to. It was very common in ancient Greece, produced extensively on a mass, yet professional, scale. These vases were highly valued throughout the surrounding countries and evidence of the extensive distribution had been verified through archeology. What does all this tell us about the Greek people and neighboring peoples, of their appreciation of decoration

and beauty? The Athenian vase had a major influence on practically every aspect of the social science of Greece, and lends itself well to instructing students.

-Cathy Phillips

KIMONOS

The clothes and costumes of different cultures can lead to many avenues of exploration for children. Units on types of material, comparison of costumes from different cultures or a unit on Japan are a few of the ideas that can come from a single article of clothing. I decided to explore the history of the kimono and the Japanese dress accessories.

Letting children observe and actually touch kimonos would stimulate their interest and this would get them involved in the study. After viewing kimonos children may want to know why the Japanese people wear this type of clothing and who designed the kimonos.

By using realia from Japan I feel children would be much more stimulated in a unit on Japan. It is hard for children to understand some things but, by using a concrete approach, I feel children can comprehend much more.

The history of the kimono is an interesting one because the kimono evolved into what it is today over a period of time. There were three major types of clothing worn by the Japanese before the kimono was introduced. The class could be broken up into four groups and each group could study one type of clothing and report to the class on the findings about that particular item. Pictures of the actual item of clothing would help the class visualize information about the clothing.

While looking at pictures of kimonos, children may find interesting buildings such as the Tokyo Tower which could spark a discussion on the tower and other buildings. The cherry trees are a common sight in Japan and they also serve for many ceremonies such as the Cherry Festival in the spring. These trees would be an exciting part of the unit and the children could actually plant one, and when the tree started to bloom the class could hold their own Cherry Festival.

After discovering how the kimono came into being, a study on the kimono

itself would be beneficial to the students. Different kimonos symbolize different things. For instance, long-sleeved kimonos worn by women are a sign of being single. Kimonos such as this could be researched to find when they would be worn and why.

After studying the symbolism of the kimono, other Japanese items can be studied. The Buddha, the God of the Japanese, can be studied while studying other religious customs.

The obi is an important part of the kimono and could be studied by the students. The obi symbolizes the beauty of Japan and for different occasions and, depending upon what type of kimono is worn, there are unwritten laws governing the colors and designs of the obi. The children could categorize certain kimonos and find an appropriate obi. The same with holidays. The children could research and discover what type of kimono and obi should be worn for certain holidays. Many other accessories such as the type of socks and shoes worn could also be looked at during this time.

When the children are studying the obi and the other accessories, have the children compare the Japanese dress with the American dress. Also at this time the dress of Japan today can be looked at and compare with the changes from early times to the present times.

The making of the kimono is also an interesting study. When kimonos were first worn they were made by dyeing and weaving the material. Industry being what it is today, kimonos can now be produced by machinery. Kimonos are known for their elaborate designs. Their designs were done in as many as seven different manners. Children could break up into groups and study one of the methods of design and with the help of an expert they could create their own design. If materials and expertise are available the designs made by the children could be produced. Children grasp and understand much more when they are actually able to have "hands-one" experience with materials.

The children can study the dyeing and the weaving process of kimonos. Many activities can be done with dyeing and weaving to further the knowledge of the children. While studying dyes the children may learn the colors and how other colors can be found by using the primary colors.

Different types of material can be studied to see what would be appropriate material for a kimono. Depending upon the season, climate and occasion, different material is used. If the school budget allowed for extra activities, a cheap material could be found and kimonos for the children could be made with the help of some parents. If a white cotton material were used the children could draw or paint their own design on their kimonos.

While studying the different materials the children can study where these materials came from. Also while studying the manufacturing of kimonos, other industries could be studied as well. Japan is one of the leading makers of automobiles, cameras, stereo equipment and many more things that are used in homes in the United States. I think the children would find it interesting to see how many items that are used in their homes are made in Japan.

On the final day of the study the children could bring their kimonos to class and a demonstration of how the kimonos are worn can be given by the teacher or by a Japanese person. To finally wrap up the study of kimonos, it would be nice to have a Japanese style dinner with the children dressed up in their kimonos.

Before the final dinner, the Japanese food would be an interesting subject. Rice is a main food in the Japanese diet and these can be studied in great detail. The fried food such as seaweed and squid can be studied and the children may enjoy drying their own food.

There are many ideas that can be incorporated into several units; the Japanese style of living, the food they eat, the folding of paper - origami, doll-making, flower arranging, writing style, kites, Boy's Day, the temples,

Mt. Fugi, plus their mode of transportation. Every culture has many different items that are interesting to someone who knows nothing about that culture. Material and knowledge of the culture need to be introduced by someone who is excited about the study and will transfer that excitement over to the children.

-Elizabeth Padilla

GOLDEN SHOES OF INDIA

Children can be taught using a variety of techniques - lectures, demonstrations, experiments and audio-visual aids - just to name a few. One technique that has constantly proven to increase not only interest in learning but also has a higher guarantee of actual learning and retention is to have some sort of an object relating to the subject being taught which the children can physically manipulate. When children have an actual object which they can hold in their own two hands, feel and scrutinize every detail, and discuss in class, it tends to be more interesting for them. It is easier for them to relate to an object which they have actually held and examined than an object they have only seen in a picture in a book. It is for this reason that I believe items such as the object I chose can be used by the teacher to introduce a new unit, give examples during a unit, and lead to further questioning about the people and culture being studied.

The object that I chose to lead off the questioning with is a small pair of shoes. The shoes are white with gold embroidery all over, a pointed toe, and a strap which runs from the middle of the foot around and buckles at the side. This one small pair of shoes can start off a whole series or chain of questioning, which leads to seeking answers, which leads to learning.

The first thing children would probably want to know regarding these shoes is who wore them. Through the use of some strategically placed pictures, books, and magazines in the classroom, the children can investigate and find that the shoes originated from some far Eastern culture. Further investigation would lead to the correct conclusion that the shoes are from India.

Once the origin of the shoes is discovered, the next questions children might ask could regard the country itself. The teacher should encourage inquiry and discussion of where the country's geography could be studied to find what possible natural resources and exports it provides. The fact that

there is gold embroidery on the shoes may encourage the children to find out if gold is a natural resource of India, how abundant it is, and what kinds of clothing it is used on.

The gold embroidery could then lead on to all sorts of other questions. Children could inquire into what type of person might wear these shoes, and for what occasion. Through further reading students may come to the conclusion that the shoes would be worn by a child in the upper-middle or upper classes, perhaps only on special occasions. Children could study the different social classes of India, and the particular characteristics of each.

Inquiry as to what occasions the shoes are worn for could lead to research into the religions and customs of the country along with the particular ceremonies and customs that go along with each. For example, the students could find out which religions consider cows as sacred animals and therefore refuse to kill or eat them. Going further along these lines, the major similarities and differences of the Hindu and Moslem religions could be discussed. The impact of Mahatma Gandhi on the Hindu-Moslem uprisings, as well as the religious conflicts' effects on the history of present day India should be looked into. Children could learn about Indian leaders such as Jawaharlal Nehru.

From here it would be important to lead the students into a discussion of the government of India. Students could trace the history of Indian government from the time of kings and maharajahs as rulers, through the British control of India and the country's declaration of independence to its present day government. The government and constitution of India could be compared to that of the United States. Children could find similarities and differences, and maybe come to some conclusion as to which one they would prefer to live under and why. Answers here might tend to be very interesting.

Additional pictures may be provided which show the different types of dress

in India. Students may notice that many of the clothes are light-colored or white and come to the conclusion that light-colored clothes reflect the hot sun and thus protect the people of this sunny country from overexposure and heatstroke. From here the climate of India, its weather, and flora and fauna may be researched. Students can find out what kinds of plants are grown for the purposes of food and clothing, and what animals are native to the country. Inquiries could be made to find out just why certain crops are grown. For example, why do Indians eat so much rice? Is it because the climate is conducive to growing rice, or because of the overpopulated cities and the variety of terrain there is not enough room to graze stock for the purposes of eating meat? Perhaps it is a combination of the two.

The native animals of India could be studied. Differences may be noticed between the African elephant and the Indian elephant (the African elephant has the larger ears). Children could read the story "Rikki-Tikki-Tavi," a story about a mongoose who saves a human family from a poisonous cobra. Students may wish to compare the similarities of an American family that has a dog for a pet and an Indian family that has a mongoose for a pet. The different snakes in India could be studied. Children are intrigued by the fact that a man playing a recorder can hypnotize the dreaded cobra with his music and carefully planned body movements. The snake will follow the rhythmic body swaying of the musician. Someone could find out how a boa constrictor kills its prey. Every time the animal exhales the snake wraps tighter around its lungs, not letting it breathe in again until eventually it suffocates. What does a tiger smell like? American children may be well-acquainted with the smell of a dog, or a cow, but how many would recognize the strong, musky scent of a tiger, as some Indian children can. I think this portion of the unit would be particularly interesting to students, as almost all children love animals.

After the people of India have been studied, the art, music and drama of India may be concentrated on. Indian records and tapes could be brought in for the students to listen to, as well as children's stories and pictures. The students could describe how the music makes them feel, and discuss the types of instruments which may be used to convey this feeling. Students may compare the instruments played by children there with those played by children in the United States. The same could go for stories read by children of India. Indian movies might be viewed (with subtitles), and their impact on the Indian culture discussed. Many Indians work very hard to earn their money, and then go spend it going to see movies. Why are movies so important to people of this country.

The teacher could then discuss the similarities and differences between Indian and American schools. For example, Indian children are required to take English as a second language, and receive instruction very early in their schooling. Many schools require another ancient Indian language, such as Sanskrit, to be taught. How are their high schools different from ours? What is the major test that one must pass in order to graduate? How much time do the students get off from school in order to study for this test? What is the grading system like? All these and more could be answered regarding the educational system of India.

Children could then look into the many languages of India. How many national languages are there? How did this affect the people of India who strived to work together as one nation, but who did not speak the language of their neighbors.

Looking again at the shoe, the viewer might notice the buckle. It is a very easy buckle to work, without any small holes that need prongs pushed through. The buckle is very easy for a child to work, and was designed long before velcro was ever invented. This buckle could lead to more discussions

and questions. If a very small child was already expected to dress himself, as is suggested by the buckle, what other responsibilities do children of India have? What are their daily chores? How are they allowed to interact with the rest of the family? How is the family structure in India similar or different than that of the family structure in America?

Another important source of information could come from someone who has actually lived in India. These people often hold an attraction to students that the teacher does not. They also have access to many items from India which could help the class learn about the country that the teacher might not have. I can remember sitting spellbound in my fifth grade social studies class as a small, dark-skinned man who spoke with the soft, rich accent of an Indian fascinated our class with slides, treasures, and stories of his native country. That man, incidentally, was my father, and I was very proud to have him there in my classroom. Parents are an invaluable asset to the classroom, and should not be overlooked. Too many times teachers are intimidated by parents and never think of actually inviting them to the classroom to speak to the class on some topic of interest. Community agencies are also helpful in this area. There may be a group in your community of Indians who get together for social functions which may be of great help in implementing your program.

I believe the possibilities for subjects which could be studied on the topic of India are endless, and all could be introduced very simply through one small item; in this case, a pair of shoes. This introduction makes the subject far more appealing and exciting to a student than just simply reading a textbook. I believe the time and effort put into organizing a unit like this is well worth the end product of the knowledge the students acquire, and I plan to use this approach whenever possible in my classroom.

Information Sources

About India, Information Service of India, Washington, D.C., 1959.

Dr. Pritindra Chowdhuri, native of India, father extraordinaire.

-Naomi Chowdhuri

The Role of Furniture in History

There are many ways that history can be brought "alive" to show students that history is not only in history books. This can be done by utilizing "hands-on" materials. There are many items in a student's home that are a part of history or a culmination of historical building blocks. These items can be incorporated into the social studies curriculum as a springboard to capture pupil interest. This springboard effect will capture their attention plus promote their excitement, and would guide them into a natural sense of learning.

An example of a "hands-on" material that is found in every home is furniture. Furniture is a culmination of history; it is multi-cultural, and the good thing is that it is a part of our daily lives. So, if used in a social studies curriculum, the knowledge that is derived from the use of furniture will always be with pupils because they will use it every day, and this may generate an on-going learning experience and awareness.

A unit based on furniture has the potential of utilizing this Conceptual Schemes Approach to the Social Sciences (Thomas, 1984, handout). Each activity could be designed to show how each category applies to all areas in our life in relation to furniture.

Anthropology

The Conceptual Scheme states that:

"man is the product of heredity and environment."

(Thomas, 1984)

On this basis a class could investigate how furniture came to be, why we need it, and the changes it has undergone. When man first came to be, furniture wasn't necessary because man was nomadic and they didn't have the conventions that we have today. As man progressed the need was greater and a purpose was established. An activity that would generate a mood for

inquiring would be brainstorming. The brainstorming exercise would lead the students to all kinds of different angles that they would want to explore and find answers. After the brainstorming the class could be divided up into small groups to go on an "archaeological dig;" this could be divided up into Indians of the U.S., Asians, Egyptians, Eskimos, etc. . .

The purpose in the digs would be to find out what furniture they used during that day and time. These activities will generate the enthusiasm that will foster the class into wanting to know more about furniture. Also, it provides the teacher an indication of what activities the students enjoy. Their minds are going, so that if additional activities or outside work needs to be done, it can be used constructively within the classroom.

Sociology

The Conceptual Scheme states that:

"human behavior is shaped by the social environment"

(Thomas, 1984).

Therefore, the reason why each culture has unique furniture is because of social characteristics during that time and period are different from culture to culture. An interesting but useful activity would be identifying different countries that have unique furniture styles, i.e., Arabs' pillows, Asians' low squatty tables without chairs, or mats as beds. After identifying different countries, have resource people (people who have lived there or won some of the furniture), come into the classroom. If living in a big city, visit a museum or a store that sells imported furniture. Also collages, dioramas, or replicas could be made to reinforce the idea that each culture has its own needs and wants, and this is reflected in its choice of furniture. A question that might be asked is: Why do you have the furniture that is in your home? Can you identify it? Other questions could also be asked so that the students can see that even they have furniture for specific reasons.

Geography

The geographical location also plays an important part in the type of furniture that is used. If a person lived in a rugged area, they would want their furniture to hold up to its use. If the climate is hot and arid they would want their furniture to be cool and stay dry. The geography also plays an important part in the materials that are used in the construction of the furniture. If wood is not to be found or wouldn't hold up the furniture, the furniture would be made out of materials that are abundant or more readily on hand. This would be a good time to investigate the sturdiness of materials used in construction. If the material would be hot or cold depending upon the climate. An activity based on this would be scientific. Obtain several pieces of wood that would represent construction materials. Go through the scientific research process. Break the students into small groups and let them experiment. Have them present their findings to the class and their recommendations. Also cloths or coverings could be researched in this way. This activity would be useful because it involves the scientific research approach, thus requiring pupils to think and make their own conclusions.

Economics

Economics affects furniture greatly. In certain periods economics have dictated the materials of which furniture has been constructed. This can clearly be shown here in America. The price of wood has become so high that alternate materials have to be used. This can be seen in plastic furniture, veneers and more metal and cloths. The evolution of the classroom desk is a prime example of this change. Desks when first constructed were made of wood. As times progressed and the desks were worn out, new desks were purchased. The price of wood was too high, so plastic desks were purchased. Modern furniture is also another good example with the transgression from wood to plastic, metal and cloth coverings. An activity that would bring

out these factors may center on making comparisons. Comparing the price of constructing a piece of furniture in different time periods using different materials.

Political Science

Political science has had an interesting effect on furniture. In England the Kings dictated the style. If a King wanted plush furniture, or straight sticks for furniture, it was always designed to his taste. After a king's furniture was made the people would purchase and decorate their homes with it. In America the "Federal" style was created after the Revolutionary War. This style was mainly designed to reflect patriotism in our new country. There are other examples of political science reflected in furniture but as the students' begin to understand this concept and with the experience from the previous categories they will find the other examples. This is why a teacher needs to only give a few examples to encourage students to have to think.

The role of furniture in history is important. It serves as a "hands-on" material that children respond to when learning about abstract concepts. Furniture is also a part of our daily life and will continue to be so. If we can teach pupils about common objects that indirectly affect them and is a part of history, then they can see that they are a part of history. They will also come to realize that what is happening now will be history. So then, history is not just in the "textbook;" it's all about what's happening in the world now, and they are a part of history.

As a last activity to consolidate all of the parts of the Conceptual Scheme, have the students design furniture that would be found in the future. There could be three different types of the "new world." The teacher would set down the conditions, i.e., the sociological conditions, geographical conditions, economical conditions, and the politics of that time. This activity will

allow the children to express their own creative and imaginative ideas. It could serve as the "grand finale" of the furniture unit.

References

Thomas, J. I. (1984). A Conceptual Schemes Approach to the Social Sciences. Handbook.

Watson, S. F. (1976). The History of Furniture. 7-100.

-Sandi Montoya

COLORADO GOLD

I. Historical Perspective

Bring me men to match my mountains,
Bring me men to match my plains,
Men with empires in their purpose
And new ears in their brains
Sam Foss

The dream of wealth, power, and fortune began in Colorado in the year 1858 on the Front Range of the Rocky Mountains. It was a dream that would draw thousands of people to the region in only a few years and with them an assortment of businessmen, engineers, and investors. It provided the purpose for civilization in the once intimidating mountain region and paved the way for greater westward expansion. It brought fame to some and heartbreak to others. For most, it was a rugged way of life, yet determination and minute successes would encourage further exploration. Gold was the dream and miners and prospectors were those first holding the vision.

William Green Russell was the first man to consider the possibility of gold in the Rocky Mountains. Stirred by a rumor that Cherokee Indians had found a tiny "color" or gold in Colorado streams around 1850, Russell, John Beck, and a band of Cherokee Indians decided to try their luck. It was 1858 and after several months of panning they uncovered a small amount of dust at the mouth of Little Dry Creek near the present site of Denver. While Russell traveled to Fort Laramie for supplies, John Easter of Lawerence, Kansas had inadvertently discovered Russell's spot and formed a settlement. Upon his return, Russell and his men also built simple shelters. By 1859 and with the help of boosters, outfitters, and merchants, the rumor spread of a gold find in the Rocky Mountains. The rush began.

John Gregory, however, is largely accredited with the gold find in the Rocky Mountains. In 1859 he uncovered the first gold lode near what was soon to become Central City. Eventually, this area would be nicknamed- "The Richest

Square Mile in the World." During this time, several other discoveries were made with strikes reported up and down the Front Range. To support the miners, towns began forming, constitutions were adopted, and mining became big business.

By 1863, placer mining had been exhausted and was replaced by lode mining. Many problems were to face the miners then. The surface gold had been extracted and caused a need for deep hole mining which in turn caused a need for more efficient refining techniques. Both were expensive. In 1867, Professor Nathaniel P. Hill from Brown University discovered a way to treat the ore chemically, rather then mechanically, leaving a purity in the gold similar to that found in surface gold. This discovery, joined with the extension of the railroad to haul vast amounts of ore to the smelters, rejuvenated the mining communities.

The last great Rocky Mountain gold strike occurred at Cripple Creek in 1891. The area was nicknamed the Bowl of Gold and contradicted most mining theories. The basin was actually the crater of an ancient volcanoe. It was filled with lava complexes which are not usually coupled with gold deposits. This specific one, however, did have thick lodes which were found laying on the topsoil. Winfield Scot Stratton was the founder of this area and capialized on the change in mining from pick-and-pan to mass output.

By the late 1880's, the mining industry had changed radically. The turn was toward shaft mining and individual miners turned from hopes of their own strikes to working for wages in another's mine. With this change, problems between workers and owners abounded. The roots of the problem had been planted many years before when investors from the east poured money into the western mines. More times than not, these investors never saw their mines but reaped the benefits of the miners' hard work. Because of fluctuating wages and long hours imposed by the investors, miners became dissatisfied. It was during this time that the modern labor union was born.

One such incident that led to the birth of these unions occurred during the early 1890's when a surplus of workers had formed in the Cripple Creek area and surrounding gold fields. Mine owners took advantage of the surplus and cut wages or extended the work day. Instantly the miners struck and mine owners retracted their orders. Because of this, the miners became aware of the need to strengthen their ranks and most joined the Western Federation of Miners. Backed by Governor Davis H. Waite during the year 1894, the miners had many successes. The successes, however, were short term.

During the late 1890's, Governor Waite was replaced by James Peabody. In 1903 a strike took place at Cripple Creek and Governor Peabody dispatched the militia. Commanded by General Bell, the federation man were harassed and seemingly provoked. The unionized miners retaliated and hired a man named Harry Orchard to work for them. Over the years, the union had changed from a democratic group of hard working men, to a place for autocratic rulers. Harry Orchard, along with a group of hired men, complied with the demands of the union by retorting against the strikebreakers with bombings and killings. The county developed a concentration camp type atmosphere and General Bell eventually shattered the Cripple Creek division of the Western Federation of Miners.

Although the mine owners saw this incident as a victory, it did nothing for the now deteriorating economy. Mining resumed, but only with a narrow profit margin. The community had seen terrorism become commonplace and miners were still dissatisfied with their working conditions. Although the Cripple Creek affair was but one incident, it foresaw the inevitable collapse of the industry itself.

II. Application

This segment of Colorado history has the potential to incorporate a variety of disciplines across a variety of learning tasks. The application

of this era to the fields of sociology, political science, economics, history, geology, and geography, will be examined.

Various concepts from sociology are very obvious in the structure and way of life of the miner and the mining communities. For instance, children may first be introduced to the idea of environmental effects by pretending to be a miner in the Cripple Creek area. They should plan the type of clothing and shelter needed for this region. They might answer questions such as-- What type of food could be bought on a miner's salary? What were the institutions set up to protect the miners' rights? What did the miners do for recreation? What ideas did they value and refute? Why? How were the miners like the people of that region today? The ideas of cooperation and competition may be looked at through a variety of laws. How did competition cause the development of claims? Were miners successful in gathering benefits through the cooperative efforts of unionism?

The children might examine pictures of tombstones (names on them) from the cemeteries of Central City to learn of the migration of various workers from other countries to the region. They may consider whether the diversity in peoples helped the coalition of the miners or hindered it. Social roles may be examined by the listing of miners' rights as opposed to those of mine owners. What type of man was each considered to be by his peers? By the "other side"? For example, the leader of the W.F.M. might have been perceived to be a fair, hard working man by some and as a troublemaker to others. Sociology provides the means to study this era through the people and institutions that were the lifeline of the time.

Political science may be studied through the governments erected during that time. Two functions of government are to serve and regulate the people for which it stands. After examining the miner's life, questions may be presented as to the needs one would have had, that the government could have served.

After studying the union/management clashes of the 1890's, questions may be raised as to government regulation and intervention of such proceedings. What might have been the result of the Cripple Creek incident if the Governor had not called upon the militia? This may also be compared to our present day government and the regulative position it assumes in intervening both home and abroad. As the Constitution provides for flexibility in changing times, so must the government. A time line may be constructed revealing the changes taken place in Colorado government over the years and what needs those changes met. Political science provides the means to study the power and organizations of authority from past time to present.

In my opinion, economics is the most exciting discipline which might be coupled with the mining industry of the time. One of the best ways, I feel, to provide the basic concepts might be to set up as a mining community of their choice. Each student becomes a character of the community, perhaps, a miner, merchant, bar maid, government official, investor, mine owner, etc. The children may be presented with task cards to begin the process. To examine the concept of limited resources versus unlimited wants, the investor may be given the problem of a lode running out when there are still many bills to be paid. What could he do? How would it affect each member of the community? (Have each child speculate as to the effects on his/her job or business.) The students may compare the expense of specialization to that of individual processing. The students may role-play the effects of a miners' strike on each community member. Perhaps, too, they may determine which position is better; to have all profits sent to the eastern investors or to put capital back into the industry. Economics provides the means to teach students about the basic needs and wants of consumers and producers.

The historical framework is the discipline where this paper may best be placed. Concepts relating to change, sequence, and chronology may be

exemplified using a time line incorporating the various events in the growth of the mining industry. This may be compared to other historical events happening around the world at the same time. The concept of developing civilizations may be illustrated by the vast number of "foreigners" to the area. Since interdependence is continual, brotherhood is necessary for a community to survive. Perhaps the relationship between workers may serve to demonstrate this principle. Colorado is a state of diverse backgrounds and the original miners made it so. However, this does not relinquish the commonalities found between men. When the miners struck, they did so as a group. Cornish supported Irish as Irish supported Swiss. The concepts related to the differing interpretations of events may be presented through various forms of literature across different time periods. Looking at one incident through a variety of explanations may help a child become a critical reader. Concepts relating to character and ideals may be suggested through the comparison of a miner's account of his feelings about striking in 1904, to those of a union worker today. What dissimilarities might be present? What similarities? History provides the means for awareness of fostering intelligent actions now and in the future.

Geology and geography may be the easiest disciplines to teach through this information. Geologic forces created the mountains, producing various veins and lodes of gold. The broken surface of the mountains brought gold rich veins to the topsoil. Erosion made the ore visible, washing placer deposits into streams. The students may study the vocabulary of these disciplines for application in other areas. They may construct models of the mountains, breaking points to display the ore. More curious investigators may review the hypothesis of Statton, that a rich pit of gold should be found at the center of Cripple Creek. His mines seemed to converge at a center point where he felt molten gold had hardened on the floor of the Rockies and

has yet to be discovered. Geography may take into account the diverse terrain and climate of the area. The effects of terrain and climatic variation may be studied in relation to why and where people chose to live. This may be done by examing various types of maps for information. Questions such as, If Colorado were an arctic region, would gold mining have been as profitable a business?, should help initiate activities. Geography and geology provide the means for establishing a strong foundation as to how gold and gold mining were founded.

Although I have provided a variety of examples throughout the various disciplines, there are still more to be created. This era I selected was quite small in the time span of man and quite regional. I do feel these ideas, however, may be applicable to mining or another unionized industry in general. One idea I would like to stress is the capability of a few years to produce a variety of learning tasks through many differing perspectives.

BIBLIOGRAPHY

Anderson, Pike, and others, Magnificent rockies. Palo Alto, California: American West Publishing Company, 1973.

Blough, Glenn O. and Julius Schwartz, Elementary school science and how to teach it. New York, New York: Holt, Rinehart and Winston, 1979.

Bridge, Raymond, Tourguide to the rocky mountain wilderness. Harrisburg, Pa.: Stackpole Books, 1975.

Williams, Albert N., Rocky mountain country. New York, New York: Duell, Sloan & Pearce, 1950.

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